

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-----------------|----------------------|---------------------|------------------|
| 10/815,940 | 04/02/2004 | Hiroshi Terazawa | TERA3002/FJD 8949 | |
| 23364 | 7590 10/12/2005 | | EXAMINER | |
| BACON & THOMAS, PLLC 625 SLATERS LANE | | | PATEL, VISHAL A | |
| FOURTH FLOOR | | | ART UNIT | PAPER NUMBER |
| ALEXANDRIA, VA 22314 | | | 3673 | |

DATE MAILED: 10/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | Application No. | Applicant(s) | | | | |
|--|---|---|--|--|--|--|
| Office Action Summan. | 10/815,940 | TERAZAWA, HIROSHI | | | | |
| Office Action Summary | Examiner | Art Unit | | | | |
| | Vishal Patel | 3673 | | | | |
| The MAILING DATE of this communication ap Period for Reply | pears on the cover sheet with the | correspondence address | | | | |
| A SHORTENED STATUTORY PERIOD FOR REPL WHICHEVER IS LONGER, FROM THE MAILING D. - Extensions of time may be available under the provisions of 37 CFR 1. after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period Failure to reply within the set or extended period for reply will, by statut Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | DATE OF THIS COMMUNICATION 136(a). In no event, however, may a reply be to will apply and will expire SIX (6) MONTHS from the course the application to become ABANDON | ON. imely filed m the mailing date of this communication. ED (35 U.S.C. § 133). | | | | |
| Status | | | | | | |
| 1) Responsive to communication(s) filed on | | | | | | |
| 2a) ☐ This action is FINAL . 2b) ☐ This action is non-final. | | | | | | |
| 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is | | | | | | |
| closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213. | | | | | | |
| Disposition of Claims | | | | | | |
| 4)⊠ Claim(s) <u>1-4</u> is/are pending in the application. | | | | | | |
| 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | |
| 5) Claim(s) is/are allowed. | | | | | | |
| 6)⊠ Claim(s) <u>1-4</u> is/are rejected. | | | | | | |
| 7)☐ Claim(s) is/are objected to. | 7) Claim(s) is/are objected to. | | | | | |
| 8) Claim(s) are subject to restriction and/ | | | | | | |
| Application Papers | | | | | | |
| 9)☐ The specification is objected to by the Examiner. | | | | | | |
| 10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner. | | | | | | |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | | |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). | | | | | | |
| 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. | | | | | | |
| Priority under 35 U.S.C. § 119 | | | | | | |
| 12)⊠ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). | | | | | | |
| a)⊠ All b)□ Some * c)□ None of: | | | | | | |
| 1.⊠ Certified copies of the priority documents have been received. | | | | | | |
| 2. Certified copies of the priority documents have been received in Application No | | | | | | |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage | | | | | | |
| application from the International Bureau (PCT Rule 17.2(a)). | | | | | | |
| * See the attached detailed Office action for a list of the certified copies not received. | | | | | | |
| | | | | | | |
| | | | | | | |
| Attachment(s) | | | | | | |
| 1) Notice of References Cited (PTO-892) | 4) Interview Summary | | | | | |
| 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date Notice of Informal Patent Application (PTO-152) | | | | | | |
| Paper No(s)/Mail Date | 6) Other: | | | | | |
| J.S. Patent and Trademark Office PTOL-326 (Rev. 7-05) Office A | ction Summary P | art of Paper No./Mail Date 20050929 | | | | |

Application/Control Number: 10/815,940

Art Unit: 3673

DETAILED ACTION

Claim Rejections - 35 USC § 112

- 1. The following is a quotation of the second paragraph of 35 U.S.C. 112:
 - The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 2. Claims 1-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, lines 5 and 7, "in and/or" makes the claim indefinite.

Claim 1, line 9, "the first vertical wall" this limitations lacks antecedent basis.

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ohtuski et al (US. 6,637,754).

Ohtuski discloses a bearing unit (figure 23) having bearing members (3) interposed between a rotatable member (1) and a stationary member (2) in order to allow rotatable member to rotate relative to the stationary member. A combination seal provided at a location outside of the bearing members (the combination seal of figure 23).

The combination seal having a first annular case having a cylindrical wall and a vertical wall (walls 11a and 11b), a second annular case having an axial lip (16a) and a radial lip (16b),

the axial lip having a distal portion that contacts the vertical wall (16a contacts the vertical leg), the radial lip having a distal portion that contacts a surface of the rotatable member (16b that contacts 19), the radial lip is inclined farther away than its leg portion (leg of the radial lip) from the vertical leg of the annular case in a direction along the rotatable member (this is the case since the radial lip is inclined toward the members 3).

Ohtuski discloses the invention substantially as claimed above but fails to disclose that the invention of figure 23 having a second axial lip. Ohtuski in figure 25 teaches that a seal can have two axial lips instead of a single lip that contacts a vertical leg of an annular case (column 27, lines 49-63). It would have been obvious to one having ordinary skill in the art at the time the invention was made to replace the single axial lip 16a of Ohtuski (figure 23) with two axial lips as taught by Ohtuski (figure 25), to provide a primary function of preventing water from ingressing from the outside of the bearing into the interior of the bearing and therefore (column 27, lines 67-63 of Ohtuski).

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tajima et al, Mitsue et al, Niebling et al, Yasui et al, McKinven Jr. and Hajzler.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vishal Patel whose telephone number is 571-272-7060. The examiner can normally be reached on 6:30am to 8:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather C. Shackelford can be reached on 571-272-7049. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Application/Control Number: 10/815,940

Art Unit: 3673

Page 4

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

VP

October 3, 2005

Vishal Patel

Patent Examiner

Tech. Center 3600